

## Refine Search

### Search Results -

Terms	Documents
L2 and (tetracycline or tet near5 operator\$)	25

Database:

US Pre-Grant Publication Full-Text Database  
 US Patents Full-Text Database  
 US OCR Full-Text Database  
 EPO Abstracts Database  
 JPO Abstracts Database  
 Derwent World Patents Index  
 IBM Technical Disclosure Bulletins

Search:

Refine Search

Recall Text



Clear

Interrupt

### Search History

DATE: Friday, November 26, 2004   [Printable Copy](#)   [Create Case](#)

<u>Set Name</u> side by side	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u> result set
<i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR</i>			
<u>L3</u>	L2 and (tetracycline or tet near5 operator\$)	25	<u>L3</u>
<u>L2</u>	L1 and rev near10 (trans or separate\$)	58	<u>L2</u>
<u>L1</u>	lentivir\$ near5 vector\$	2068	<u>L1</u>

END OF SEARCH HISTORY

Set	Items	Description
---	-----	-----
? set hi	;set hi	
HIGHLIGHT	set on as	' '
<b>HIGHLIGHT</b>	<b>set on as</b>	<b>' '</b>
? BEGIN	5,6,55,154,155,156,312,399,	biosci,biotech
>>>	135 is	unauthorized

Set	Items	Description
? s	lentivir? (2n)	vector?
	77435	LENTIVIR?
	1416395	VECTOR?
S1	8855	LENTIVIR? (2N) VECTOR?
? s s1 and rev		
	8855	S1
	78574	REV
S2	443	S1 AND REV
? s s2 and rev (10n) trans		
	443	S2
	78574	REV
	976747	TRANS
	1330	REV(10N)TRANS
S3	37	S2 AND REV (10N) TRANS
? rd s3		

>>>Duplicate detection is not supported for File 391.

>>>Records from unsupported files will be retained in the RD set.  
...completed examining records

S4 14 RD S3 (unique items)  
? d s4/9/1-14  
Display 4/9/1 (Item 1 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
(c) 2004 BIOSIS. All rts. reserv.

0012509040 BIOSIS NO.: 200000227353  
Modified human immunodeficiency virus-based **lentiviral vectors**  
display decreased sensitivity to **trans**-dominant **Rev**  
AUTHOR: Mautino Mario R; Ramsey W Jay; Reiser Jakob; Morgan Richard A  
(Reprint)  
AUTHOR ADDRESS: Clinical Gene Therapy Branch, NHGRI, 10 Center Drive, MSC  
1851, Building 10, Room 10C103, Bethesda, MD, 20892-1851, USA\*\*USA  
JOURNAL: Human Gene Therapy 11 (6): p895-908 April 10, 2000 2000  
MEDIUM: print  
ISSN: 1043-0342  
DOCUMENT TYPE: Article  
RECORD TYPE: Abstract  
LANGUAGE: English

ABSTRACT: As a first step toward the development of HIV-based conditionally  
replicating defective interfering particles expressing **trans**

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Display 4/9/1 (Item 1 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
(c) 2004 BIOSIS. All rts. reserv.

-dominant **Rev** (TdRev), we studied whether mutation of the splicing  
signals and replacement of the RRE by the SRV-1 CTE would render these  
vectors less sensitive to TdRev. Vectors with mutations in the splicing  
signals (SD-/RRE+) yielded high titers (5 X 10<sup>6</sup> CFU/ml) and showed higher  
levels of cytoplasmic unspliced mRNA than the corresponding SD+/RRE+  
vectors either in the absence of **Rev**, in the presence of TdRev, or  
in the presence of both TdRev and **\*\*\*Rev\*\*\***. Proviral copies of SD-/RRE+  
vectors were rescued more efficiently than SD+/RRE+ vectors when TdRev  
was expressed. Vectors with the SRV-1 CTE (SD+/CTE+ and SD-/CTE+)  
expressed high levels of cytoplasmic unspliced mRNA in the absence of  
**\*\*\*Rev\*\*\*** expression. Titers obtained with the SD-/CTE+ vectors (10<sup>6</sup>  
CFU/ml) were higher than the titers obtained with SD+/CTE+ vectors. We  
also tested the effect of other structural modifications such as the

orientation of the expression cassette and the presence of the central polypurine tract (cPPT/CTS). We show that an expression cassette cloned in the reverse orientation with respect to the LTRs or elimination of the cPPT/CTS element severely affected vector titers. We also demonstrated

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Display 4/9/1 (Item 1 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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that these vectors can be efficiently mobilized from their proviral state by HIV trans-complementing functions, and transduced into secondary target cells without suffering any genomic rearrangement.

DESCRIPTORS:

MAJOR CONCEPTS: Molecular Genetics--Biochemistry and Molecular Biophysics  
; Methods and Techniques; Pharmacology  
BIOSYSTEMATIC NAMES: Herpesviridae--dsDNA Viruses, Viruses,  
Microorganisms; Retroviridae--DNA and RNA Reverse Transcribing Viruses,  
Viruses, Microorganisms  
ORGANISMS: cytomegalovirus (Herpesviridae); human immunodeficiency virus  
{HIV} (Retroviridae)  
ORGANISMS: PARTS ETC: cytoplasm  
COMMON TAXONOMIC TERMS: Double-Stranded DNA Viruses; DNA and RNA Reverse  
Transcribing Viruses; Microorganisms; Viruses  
CHEMICALS & BIOCHEMICALS: CTE; CTS element; RRE--**Rev**-responsive  
element, splicing signal; **Rev**; SD; SRV-1 CTE; central polypurine

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Display 4/9/1 (Item 1 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
(c) 2004 BIOSIS. All rts. reserv.  
tract; long terminal repeat {LTR}; mRNA {messenger RNA}; modified human  
immunodeficiency virus-based **lentiviral vector**; pBR322--  
plasmid; pCD/NLBH--plasmid; PHABD--plasmid; PHBD; PLXSN--plasmid; pNL1b  
--plasmid; pNL2--plasmid; pNL5--plasmid; pNL6--plasmid; pNL7--plasmid;  
pNL8--plasmid; pNL9--plasmid; pPUR--plasmid; pSKPSN1--plasmid; pCG6--  
plasmid; pCG7--plasmid; pCG8--plasmid; pCG9--plasmid; **trans**  
-dominant **Rev** {TdRev}  
MISCELLANEOUS TERMS: anti-human immunodeficiency virus gene therapy  
development; expression cassette orientation; gene therapy development;  
genomic rearrangement; human immunodeficiency virus trans-complementing  
functions; **trans**-dominant **Rev** sensitivity

CONCEPT CODES:

03502 Genetics - General  
10062 Biochemistry studies - Nucleic acids, purines and pyrimidines  
12512 Pathology - Therapy  
22002 Pharmacology - General  
31500 Genetics of bacteria and viruses

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Display 4/9/1 (Item 1 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
(c) 2004 BIOSIS. All rts. reserv.  
33506 Virology - Animal host viruses  
37057 Public health: disease vectors - General  
BIOSYSTEMATIC CODES:  
03115 Herpesviridae  
03305 Retroviridae

- end of record -

?

Display 4/9/2 (Item 2 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
(c) 2004 BIOSIS. All rts. reserv.

0011701271 BIOSIS NO.: 199800495518

A third-generation **lentivirus vector** with a conditional packaging system

AUTHOR: Dull Tom; Zufferey Romain; Kelly Michael; Mandel R J; Nguyen Minh; Trono Didier; Naldini Luigi (Reprint)

AUTHOR ADDRESS: Cell Genesys, 342 Lakeside Dr., Foster City, CA 94404, USA  
\*\*USA

JOURNAL: Journal of Virology 72 (11): p8463-8471 Nov., 1998 1998

MEDIUM: print

ISSN: 0022-538X

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: English

ABSTRACT: Vectors derived from human immunodeficiency virus (HIV) are highly efficient vehicles for in vivo gene delivery. However, their

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Display 4/9/2 (Item 2 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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biosafety is of major concern. Here we exploit the complexity of the HIV genome to provide **lentivirus vectors** with novel biosafety features. In addition to the structural genes, HIV contains two regulatory genes, *tat* and *rev*, that are essential for HIV replication, and four accessory genes that encode critical virulence factors. We previously reported that the HIV type 1 accessory open reading frames are dispensable for efficient gene transduction by a **\*\*\*lentivirus\*\*\* \*\*\*vector\*\*\***. We now demonstrate that the requirement for the *tat* gene can be offset by placing constitutive promoters upstream of the vector transcript. Vectors generated from constructs containing such a chimeric long terminal repeat (LTR) transduced neurons in vivo at very high efficiency, whether or not they were produced in the presence of *Tat*. When the **\*\*\*rev\*\*\*** gene was also deleted from the packaging construct, expression of *gag* and *pol* was strictly dependent on **Rev** complementation in **\*\*\*trans\*\*\***. By the combined use of a separate nonoverlapping **Rev** expression plasmid and a 5' LTR chimeric transfer construct, we achieved optimal yields of vector of high

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Display 4/9/2 (Item 2 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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transducing efficiency (up to 107 transducing units (TU)/ml and 104 TU/ng of p24). This third-generation **\*\*\*lentivirus\*\*\* \*\*\*vector\*\*\*** uses only a fractional set of HIV genes: *gag*, *pol*, and **\*\*\*rev\*\*\***. Moreover, the HIV-derived constructs, and any recombinant between them, are contingent on upstream elements and trans complementation for expression and thus are nonfunctional outside of the vector producer cells. This split-genome, conditional packaging system is based on existing viral sequences and acts as a built-in device against the generation of productive recombinants. While the actual biosafety of the vector will ultimately be proven in vivo, the improved design presented here should facilitate testing of **\*\*\*lentivirus\*\*\* \*\*\*vectors\*\*\***.

DESCRIPTORS:

MAJOR CONCEPTS: Methods and Techniques; Molecular Genetics--Biochemistry  
and Molecular Biophysics  
BIOSYSTEMATIC NAMES: Retroviridae--DNA and RNA Reverse Transcribing  
Viruses, Viruses, Microorganisms

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Display 4/9/2 (Item 2 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
(c) 2004 BIOSIS. All rts. reserv.  
ORGANISMS: HIV {human immunodeficiency virus} (Retroviridae)--replication  
COMMON TAXONOMIC TERMS: DNA and RNA Reverse Transcribing Viruses;  
Microorganisms; Viruses  
CHEMICALS & BIOCHEMICALS: gag gene; pol gene; **rev** gene; tat gene  
METHODS & EQUIPMENT: lentivirus--RNA transfer method, biosafety,  
transducing efficiency  
MISCELLANEOUS TERMS: biosafety; gene therapy  
CONCEPT CODES:  
31500 Genetics of bacteria and viruses  
22002 Pharmacology - General  
33502 Virology - General and methods  
BIOSYSTEMATIC CODES:  
03305 Retroviridae

- end of record -

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Display 4/9/3 (Item 1 from file: 154)  
DIALOG(R)File 154:MEDLINE(R)  
(c) format only 2004 The Dialog Corp. All rts. reserv.  
11321187 PMID: 11407907  
Defective **lentiviral vectors** are efficiently trafficked by  
HIV-1 and inhibit its replication.  
Klimatcheva E; Planelles V; Day S L; Fulreader F; Renda M J; Rosenblatt J  
Department of Medicine, University of Rochester Cancer Center, 601  
Elmwood Avenue, Rochester, New York 14642, USA.  
Molecular therapy - the journal of the American Society of Gene Therapy (United States) Jun 2001, 3 (6) p928-39, ISSN 1525-0016  
Journal Code: 100890581  
Contract/Grant Number: AI41407; AI; NIAID; AI41957; AI; NIAID  
Document type: Journal Article  
Languages: ENGLISH  
Main Citation Owner: NLM  
Record type: Completed  
Subfile: INDEX MEDICUS  
Gene therapy against HIV infection should involve vector-mediated

-more-

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Display 4/9/3 (Item 1 from file: 154)  
DIALOG(R)File 154:MEDLINE(R)  
(c) format only 2004 The Dialog Corp. All rts. reserv.  
delivery of anti-HIV therapeutic genes into T-lymphocytes and macrophages  
or, alternatively, hematopoietic progenitors. Transduction of mature cells  
with defective vectors would have limited success because the vector would  
disappear with cell turnover. However, if a vector could be trafficked by  
wild-type HIV, initial transduction of a majority of the population would  
not be required, as the vector would be able to spread. We describe  
HIV-1-based **lentiviral vectors** that are efficiently packaged  
and trafficked by HIV-1, allowing a small number of cells initially  
transduced to spread the vector within a nontransduced cell population. We  
examined whether the presence or absence of the **rev** gene and the  
**Rev**-responsive element (RRE) would have a noticeable effect on the

ability of **lentiviral vectors** to be trafficked and to inhibit HIV-1 replication. We found that replacement of **\*\*\*rev\*\*\*** /RRE with a constitutive transport element from Mason-Pfizer monkey virus had no apparent effect on trafficking and did not change the intrinsic inhibitory abilities of the vectors. We also constructed a **\*\*\*rev\*\*\*** /RRE-independent HIV-1-derived vector carrying a **trans**-dominant negative mutant of

-more-

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Display 4/9/3 (Item 1 from file: 154)

DIALOG(R)File 154:MEDLINE(R)

(c) format only 2004 The Dialog Corp. All rts. reserv.

HIV-1 **\*\*\*Rev\*\*\*** , RevM10. This vector was less efficiently trafficked by HIV-1 and, despite the presence of an anti-HIV-1 gene, RevM10, was less efficient at inhibiting HIV-1 replication when introduced into a target T-cell population.

Tags: Human; Support, U.S. Gov't, P.H.S.

Descriptors: \*Gene Products, **rev**--metabolism--ME; \*Genetic Vectors; \*HIV-1--physiology--PH; \*Lentivirus--genetics--GE; \*Virus Replication --genetics--GE; Cells, Cultured; Defective Viruses; Gene Products, **rev**--antagonists and inhibitors--AI; Gene Therapy--methods--MT; Gene Transfer Techniques; Genes, **env**--physiology--PH; Genes, **rev** --physiology--PH; HIV-1--genetics--GE; HIV-1--growth and development--GD; T-Lymphocytes--metabolism--ME; T-Lymphocytes--virology--VI; Transduction, Genetic; Tumor Cells, Cultured; Virus Assembly

CAS Registry Number: 0 (Gene Products, **rev**); 0 (Genetic Vectors)

Record Date Created: 20010615

Record Date Completed: 20010830

- end of record -

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Display 4/9/4 (Item 2 from file: 154)

DIALOG(R)File 154:MEDLINE(R)

(c) format only 2004 The Dialog Corp. All rts. reserv.

11237359 PMID: 11278119

Development of disabled, replication-defective gene transfer vectors from the Jembrana disease virus, a new infectious agent of cattle.

Metharom P; Takyar S; Xia H Q; Ellem K A; Wilcox G E; Wei M Q

Sir Albert Sakzewski Virus Research Centre, Royal Children's Hospital, Qld, Brisbane, Australia.

Veterinary microbiology (Netherlands) May 3 2001, 80 (1) p9-22,

ISSN 0378-1135 Journal Code: 7705469

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

-more-

? s s2 and tet (5n) operator?

443 S2  
17904 TET  
485985 OPERATOR?  
1080 TET(5N)OPERATOR?

S5 0 S2 AND TET (5N) OPERATOR?

? s s2 and tetracycline

443 S2  
166014 TETRACYCLINE  
S6 20 S2 AND TETRACYCLINE

? rd s6

>>>Duplicate detection is not supported for File 391.

>>>Records from unsupported files will be retained in the RD set.

...completed examining records

S7 7 RD S6 (unique items)

? d s7/3/1-7

Display 7/3/1 (Item 1 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

(c) 2004 BIOSIS. All rts. reserv.

0014211905 BIOSIS NO.: 200300170624

A new hybrid system capable of efficient **lentiviral vector**  
production and stable gene transfer mediated by a single helper-dependent  
adenoviral vector.

AUTHOR: Kubo Shuji; Mitani Kohnosuke (Reprint)

AUTHOR ADDRESS: Department of Microbiology, Immunology and Molecular  
Genetics, UCLA School of Medicine, Box 951781, Los Angeles, CA,  
90095-1781, USA\*\*USA

AUTHOR E-MAIL ADDRESS: mitani@ucla.edu

JOURNAL: Journal of Virology 77 (5): p2964-2971 March 2003 2003

MEDIUM: print

ISSN: 0022-538X (ISSN print)

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: English

- end of record -

?

Display 7/3/2 (Item 2 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

(c) 2004 BIOSIS. All rts. reserv.

0013106272 BIOSIS NO.: 200100278111

A new-generation stable inducible packaging cell line for **lentiviral**  
**vectors**

AUTHOR: Farson Deborah; Witt Rochelle; McGuinness Ryan; Dull Tom; Kelly  
Michael; Song Jinping; Radeke Robert; Bukovsky Anatoly; Consiglio  
Antonella; Naldini Luigi (Reprint)

AUTHOR ADDRESS: Laboratory for Gene Transfer and Therapy, IRCC, Institute  
for Cancer Research and Treatment, University of Torino Medical School,  
Strada Provinciale 142, 10060, Candiolo, Torino, Italy\*\*Italy

JOURNAL: Human Gene Therapy 12 (8): p981-997 May 20, 2001 2001

MEDIUM: print

ISSN: 1043-0342

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: English

- end of record -

?

Display 7/3/3 (Item 1 from file: 399)



DIALOG(R)File 399:CA SEARCH(R)  
(c) 2004 American Chemical Society. All rts. reserv.

139160800 CA: 139(11)160800c PATENT  
Viral vector  
INVENTOR(AUTHOR): Radcliffe, Philippa; Miskin, James E.; Wilkes, Fraser  
J.; Mitrophanous, Kyriacos A.  
LOCATION: UK,  
ASSIGNEE: Oxford Biomedica (UK) Limited  
PATENT: PCT International ; WO 200364665 A2 DATE: 20030807  
APPLICATION: WO 2003GB418 (20030203) \*GB 20022403 (20020201) \*GB  
200212768 (20020531)  
PAGES: 193 pp. CODEN: PIXXD2 LANGUAGE: English CLASS: C12N-015/86A  
DESIGNATED COUNTRIES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; BZ;  
CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; ES; FI; GB; GD; GE; GH;  
GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU;  
LV; MA; MD; MG; MK; MN; MW; MX; MZ; NO; NZ; OM; PH; PL; PT; RO; RU; SC; SD;  
SE; SG; SK; SL; TJ; TM; TN; TR; TT; TZ; UA; UG; US; UZ; VC; VN; YU; ZA; ZM;  
ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM DESIGNATED REGIONAL: GH; GM; KE; LS

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Display 7/3/3 (Item 1 from file: 399)  
DIALOG(R)File 399:CA SEARCH(R)  
(c) 2004 American Chemical Society. All rts. reserv.  
; MW; MZ; SD; SL; SZ; TZ; UG; ZM; ZW; AT; BE; BG; CH; CY; CZ; DE; DK; EE;  
ES; FI; FR; GB; GR; HU; IE; IT; LU; MC; NL; PT; SE; SI; SK; TR; BF; BJ; CF;  
CG; CI; CM; GA; GN; GQ; GW; ML; MR; NE; SN; TD; TG

- end of record -

?  
Display 7/3/4 (Item 2 from file: 399)  
DIALOG(R)File 399:CA SEARCH(R)  
(c) 2004 American Chemical Society. All rts. reserv.

139048169 CA: 139(4)48169c PATENT  
Packaging cells regulated by tetracycline-sodium butyrate system for  
producing high titer pseudotyped viral vectors, specifically equine  
infectious anemia virus vectors  
INVENTOR(AUTHOR): Olsen, John C.; Mitrophanous, Kyriacos Andreou; Rohll,  
Jonathan; Kingsman, Alan John; Ellard, Fiona Margaret  
LOCATION: USA  
ASSIGNEE: Oxford Biomedica (UK) Limited  
PATENT: U.S. Pat. Appl. Publ. ; US 20030113898 A1 DATE: 20030619  
APPLICATION: US 134643 (20020430) \*US PV287048 (20010430) \*CA 2344208  
(20010430)  
PAGES: 98 pp. CODEN: USXXCO LANGUAGE: English CLASS: 435235100;  
C12N-007/00A; C12N-005/08B; C12N-015/86B; C12N-007/01B; C12N-015/63B;  
C12N-015/85B; C12N-015/87B

- end of record -

?  
Display 7/3/5 (Item 1 from file: 73)  
DIALOG(R)File 73:EMBASE  
(c) 2004 Elsevier Science B.V. All rts. reserv.

11274092 EMBASE No: 2001290078  
**Lentivirus vectors:** Difficulties and hopes before clinical  
trials  
Kafri T.  
T. Kafri, University of North Carolina, Gene Therapy Center, 7119  
Thurston-Bowles, CB 7352, Chapel Hill, NC 27599-7352 United States  
AUTHOR EMAIL: kafri@med.unc.edu

Current Opinion in Molecular Therapeutics ( CURR. OPIN. MOL. THER. ) ( United Kingdom) 2001, 3/4 (316-326)  
CODEN: CUOTF ISSN: 1464-8431  
DOCUMENT TYPE: Journal ; Article  
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH  
NUMBER OF REFERENCES: 101

- end of record -

?

Display 7/3/6 (Item 1 from file: 357)  
DIALOG(R)File 357:Derwent Biotech Res.  
(c) 2004 Thomson Derwent & ISI. All rts. reserv.

0322666 DBR Accession No.: 2003-23806 PATENT  
New multicistronic retroviral vector genome comprising a first nucleic acid sequence upstream of an integral regulatory element, useful for treating inflammation, asthma, viral diseases, psoriasis, or neurodegenerative diseases - involving vector-mediated gene transfer and expression in host cell for use in gene therapy  
AUTHOR: RADCLIFFE P; MISKIN J E; WILKES F J; MITROPHANOUS K A  
PATENT ASSIGNEE: OXFORD BIOMEDICA UK LTD 2003  
PATENT NUMBER: WO 200364665 PATENT DATE: 20030807 WPI ACCESSION NO.: 2003-646154 (200361)  
PRIORITY APPLIC. NO.: GB 200212768 APPLIC. DATE: 20020531  
NATIONAL APPLIC. NO.: WO 2003GB418 APPLIC. DATE: 20030203  
LANGUAGE: English

- end of record -

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Display 7/3/7 (Item 2 from file: 357)  
DIALOG(R)File 357:Derwent Biotech Res.  
(c) 2004 Thomson Derwent & ISI. All rts. reserv.

0304159 DBR Accession No.: 2003-05944  
A new hybrid system capable of efficient **lentiviral vector** production and stable gene transfer mediated by a single helper-dependent adenoviral vector - involving vector plasmid pLAcG-mediated green fluorescent protein gene transfer and expression in host cell for use in gene therapy  
AUTHOR: KUBO S; MITANI K  
CORPORATE AFFILIATE: Univ Calif Los Angeles Jonsson Comprehens Canc Ctr  
CORPORATE SOURCE: Mitani K, Univ Calif Los Angeles, Sch Med, Dept Microbiol Immunol and Mol Genet, Box 951781, Los Angeles, CA 90095 USA  
JOURNAL: JOURNAL OF VIROLOGY (77, 5, 2964-2971) 2003  
ISSN: 0022-538X  
LANGUAGE: English

- end of record -

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? s s2 and cmv and (thymidine (n) kinase or RSV (n) U3)  
443 S2  
88340 CMV  
342403 THYMIDINE  
1861271 KINASE  
62850 THYMIDINE(N)KINASE  
30408 RSV  
9527 U3  
8 RSV(N)U3  
S8 0 S2 AND CMV AND (THYMIDINE (N) KINASE OR RSV (N) U3)  
? s s2 and cmv  
443 S2  
88340 CMV  
S9 20 S2 AND CMV

? s s9 and tat

20 S9

57266 TAT

S10 11 S9 AND TAT

? d s10/3/1-11

Display 10/3/1 (Item 1 from file: 154)

DIALOG(R)File 154:MEDLINE(R)

(c) format only 2004 The Dialog Corp. All rts. reserv.

12238078 PMID: 12406892

Efficient transduction of primary human B lymphocytes and nondividing myeloma B cells with HIV-1-derived \*\*\*lentiviral\*\*\* \*\*\*vectors\*\*\* .

Bovia Fabrice; Salmon Patrick; Matthes Thomas; Kvell Krisztian; Nguyen Tuan H; Werner-Favre Christiane; Barnet Marc; Nagy Monika; Leuba Florence; Arrighi Jean-Francois; Piguet Vincent; Trono Didier; Zubler Rudolf H

Division of Hematology, Department of Medicine, University Hospital, Geneva, Switzerland.

Blood (United States) Mar 1 2003, 101 (5) p1727-33, ISSN 0006-4971

Journal Code: 7603509

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

- end of record -

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Display 10/3/2 (Item 1 from file: 155)

DIALOG(R)File 155:MEDLINE(R)

(c) format only 2004 The Dialog Corp. All rts. reserv.

12238078 PMID: 12406892

Efficient transduction of primary human B lymphocytes and nondividing myeloma B cells with HIV-1-derived \*\*\*lentiviral\*\*\* \*\*\*vectors\*\*\* .

Bovia Fabrice; Salmon Patrick; Matthes Thomas; Kvell Krisztian; Nguyen Tuan H; Werner-Favre Christiane; Barnet Marc; Nagy Monika; Leuba Florence; Arrighi Jean-Francois; Piguet Vincent; Trono Didier; Zubler Rudolf H

Division of Hematology, Department of Medicine, University Hospital, Geneva, Switzerland.

Blood (United States) Mar 1 2003, 101 (5) p1727-33, ISSN 0006-4971

Journal Code: 7603509

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

- end of record -

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Display 10/3/3 (Item 1 from file: 399)

DIALOG(R)File 399:CA SEARCH(R)

(c) 2004 American Chemical Society. All rts. reserv.

139256304 CA: 139(17)256304v PATENT

Engineering of adenoviral and lentiviral vectors for production of high-titer virus in COS and VERO cells and potential use in gene therapy

INVENTOR(AUTHOR): Moullier, Philippe; Negre, Didier; Cosset, Francois Loic; Saleun, Sylvie; Duisit, Ghislaine

LOCATION: Fr.

ASSIGNEE: Universite de Nantes

PATENT: France Demande ; FR 2837497 A1 DATE: 20030926

APPLICATION: FR 20023656 (20020322)

PAGES: 34 pp. CODEN: FRXXBL LANGUAGE: French CLASS: C12N-007/01A; C12N-005/10B

- end of record -

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Display 10/3/4 (Item 1 from file: 357)  
DIALOG(R)File 357:Derwent Biotech Res.  
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0330705 DBR Accession No.: 2004-02997 PATENT  
New retroviral packaging cell having at least two vectors useful in  
treating genetic diseases resulting from expression of defective gene  
products, such as sickle cell anemia, muscular dystrophy, Parkinson's  
disease and emphysema - for use in severe combined immunodeficiency,  
chronic granulomatosis, Gaucher disease, sickle cell anemia,  
thalassemia, muscular dystrophy, Parkinson disease, emphysema, cystic  
fibrosis and hemophilia gene therapy  
AUTHOR: SCHAUBER C O; PACHECO C D  
PATENT ASSIGNEE: CELL GENESYS INC 2003  
PATENT NUMBER: US 20030207438 PATENT DATE: 20031106 WPI ACCESSION NO.:  
2003-875869 (200381)  
PRIORITY APPLIC. NO.: US 425324 APPLIC. DATE: 20030429  
NATIONAL APPLIC. NO.: US 425324 APPLIC. DATE: 20030429  
LANGUAGE: English

- end of record -

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Display 10/3/5 (Item 2 from file: 357)  
DIALOG(R)File 357:Derwent Biotech Res.  
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0314892 DBR Accession No.: 2003-16032 PATENT  
Novel self-inactivating recombinant vector for gene therapy, has lentiviral  
genes, transgene under promoter control for transcription in human  
hematopoietic progenitor cell, long terminal repeat with reduced  
activity - lenti virus vector-mediated gene transfer and expression in  
host cell for gene therapy  
AUTHOR: TRONO D; SALMON P  
PATENT ASSIGNEE: RES DEV FOUND 2003  
PATENT NUMBER: US 20030008374 PATENT DATE: 20030109 WPI ACCESSION NO.:  
2003-391920 (200337)  
PRIORITY APPLIC. NO.: US 10081 APPLIC. DATE: 20011109  
NATIONAL APPLIC. NO.: US 10081 APPLIC. DATE: 20011109  
LANGUAGE: English

- end of record -

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Display 10/3/6 (Item 3 from file: 357)  
DIALOG(R)File 357:Derwent Biotech Res.  
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0311578 DBR Accession No.: 2003-12718 PATENT  
New expression cassettes and polynucleotides encoding HIV Gag, Nef, Prot,  
**Tat, Rev, Vif, Vpr, Vpu, or Env** polypeptides, useful for  
DNA immunization or generating an immune response against HIV in a  
subject - vector-mediated HIV virus antigen gene transfer and  
expression in host cell for nucleic acid vaccine and gene therapy  
AUTHOR: ZUR MEGEDE J; BARNETT S W; LIAN Y  
PATENT ASSIGNEE: CHIRON CORP 2003  
PATENT NUMBER: WO 200320876 PATENT DATE: 20030313 WPI ACCESSION NO.:  
2003-278761 (200327)  
PRIORITY APPLIC. NO.: US 349728 APPLIC. DATE: 20020116  
NATIONAL APPLIC. NO.: WO 2002US21342 APPLIC. DATE: 20020705  
LANGUAGE: English

- end of record -

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Display 10/3/7 (Item 4 from file: 357)  
DIALOG(R)File 357:Derwent Biotech Res.  
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0309180 DBR Accession No.: 2003-10965 PATENT  
New expression cassette comprising a polynucleotide sequence encoding a polypeptide including an HIV Gag, Env, Int, Nef, p15RnaseH, Pol, **Tat**, Prot, or **Rev** polypeptide, useful for immunization, or generating packaging cell lines - recombinant virus vector expression in cell culture for use in gene therapy and vaccine  
AUTHOR: ZUR MEGEDE J; BARNETT S W; LIAN Y; ENGELBRECHT S; VAN RENSBURG E J  
PATENT ASSIGNEE: CHIRON CORP; UNIV STELLENBOSCH 2003  
PATENT NUMBER: WO 2003004620 PATENT DATE: 20030116 WPI ACCESSION NO.: 2003-221593 (200321)  
PRIORITY APPLIC. NO.: US 349871 APPLIC. DATE: 20020116  
NATIONAL APPLIC. NO.: WO 2002US21420 APPLIC. DATE: 20020705  
LANGUAGE: English

- end of record -

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Display 10/3/8 (Item 5 from file: 357)  
DIALOG(R)File 357:Derwent Biotech Res.  
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0309062 DBR Accession No.: 2003-10847 PATENT  
New synthetic polynucleotides encoding antigenic HIV type B and/or type C polypeptides, useful as immunogenic compositions or vaccines for generating humoral or cellular immune responses against HIV in a subject, especially humans - vector-mediated HIV virus antigen gene transfer and expression in host cell for nucleic acid vaccine, recombinant vaccine and gene therapy  
AUTHOR: ZUR MEGEDE J; BARNETT S W; LIAN Y  
PATENT ASSIGNEE: CHIRON CORP 2003  
PATENT NUMBER: WO 2003004657 PATENT DATE: 20030116 WPI ACCESSION NO.: 2003-221602 (200321)  
PRIORITY APPLIC. NO.: US 349871 APPLIC. DATE: 20020116  
NATIONAL APPLIC. NO.: WO 2002US21421 APPLIC. DATE: 20020705  
LANGUAGE: English

- end of record -

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Display 10/3/9 (Item 6 from file: 357)  
DIALOG(R)File 357:Derwent Biotech Res.  
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0286739 DBR Accession No.: 2002-08586 PATENT  
New polynucleotides encoding antigenic HIV Type C polypeptides, useful in applications including DNA immunization or generation of packaging cell lines, particularly in gene therapy - packaging cell culture and nucleic acid vaccine generation  
AUTHOR: ZUR MEGEDE J; BARNETT S W; ENGELBRECHT S; VAN RENSBURG E J  
PATENT ASSIGNEE: CHIRON CORP; UNIV STELLENBOSCH 2002  
PATENT NUMBER: WO 200204493 PATENT DATE: 20020117 WPI ACCESSION NO.: 2002-154920 (200220)  
PRIORITY APPLIC. NO.: US 610313 APPLIC. DATE: 20000705  
NATIONAL APPLIC. NO.: WO 2001US21241 APPLIC. DATE: 20010705  
LANGUAGE: English

- end of record -

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Display 10/3/10 (Item 1 from file: 370)

DIALOG(R)File 370:Science  
(c) 1999 AAAS. All rts. reserv.

00510523 (USE 9 FOR FULLTEXT)  
Deficient Cellular Immunity-Finding and Fixing the Defects  
Greenberg, Philip D.<CRF RID="C1"> ; Riddell, Stanley R.  
Fred Hutchinson Cancer Research Center and Departments of Medicine and  
Immunology, University of Washington, Seattle, WA 98195, USA.  
Science Vol. 285 5427 pp. 546  
Publication Date: 7-23-1999 (990723) Publication Year: 1999  
Document Type: Journal ISSN: 0036-8075  
Language: English  
Section Heading: REVIEW  
Word Count: 5116

- end of record -

?  
Display 10/3/11 (Item 2 from file: 370)  
DIALOG(R)File 370:Science  
(c) 1999 AAAS. All rts. reserv.

00500268 (USE 9 FOR FULLTEXT)  
In Vivo Gene Delivery and Stable Transduction of Nondividing Cells by a  
**Lentiviral Vector**  
Naldini, Luigi; Blomer, Ulrike; Gallay, Philippe; Ory, Daniel; Mulligan,  
Richard; Gage, Fred H.; Verma, Inder M.; Trono, Didier  
L. Naldini, U. Blomer, P. Gallay, F. H. Gage, I. M. Verma, D. Trono, Salk  
Institute, 10010 North Torrey Pines Road, La Jolla, CA 92037, USA. ; D.  
Ory and R. Mulligan, Whitehead Institute for Biomedical Research, 9  
Cambridge Center, Cambridge, MA 02142, USA.  
Science Vol. 272 5259 pp. 263  
Publication Date: 4-12-1996 (960412) Publication Year: 1996  
Document Type: Journal ISSN: 0036-8075  
Language: English  
Section Heading: Reports  
Word Count: 3384

- end of record -

? d s10/9/11  
Display 10/9/11 (Item 2 from file: 370)  
DIALOG(R)File 370:Science  
(c) 1999 AAAS. All rts. reserv.

00500268 (THIS IS THE FULLTEXT)  
In Vivo Gene Delivery and Stable Transduction of Nondividing Cells by a  
**Lentiviral Vector**  
Naldini, Luigi; Blomer, Ulrike; Gallay, Philippe; Ory, Daniel; Mulligan,  
Richard; Gage, Fred H.; Verma, Inder M.; Trono, Didier  
L. Naldini, U. Blomer, P. Gallay, F. H. Gage, I. M. Verma, D. Trono, Salk  
Institute, 10010 North Torrey Pines Road, La Jolla, CA 92037, USA. ; D.  
Ory and R. Mulligan, Whitehead Institute for Biomedical Research, 9  
Cambridge Center, Cambridge, MA 02142, USA.  
Science Vol. 272 5259 pp. 263  
Publication Date: 4-12-1996 (960412) Publication Year: 1996  
Document Type: Journal ISSN: 0036-8075  
Language: English  
Section Heading: Reports  
Word Count: 3384

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?  
Display 10/9/11 (Item 2 from file: 370)  
DIALOG(R)File 370:Science

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Abstract: A retroviral vector system based on the human immunodeficiency virus (HIV) was developed that, in contrast to a murine leukemia virus-based counterpart, transduced heterologous sequences into HeLa cells and rat fibroblasts blocked in the cell cycle, as well as into human primary macrophages. Additionally, the HIV vector could mediate stable in vivo gene transfer into terminally differentiated neurons. The ability of HIV-based viral vectors to deliver genes in vivo into nondividing cells could increase the applicability of retroviral vectors in human gene therapy.

Text: Until now, gene therapy protocols have often relied on vectors derived from retroviruses such as murine leukemia virus (MLV) (B1) (B2) . These vectors are useful because the genes they transduce are integrated into the genome of the target cells, a desirable feature for long-term expression. However, these retroviral vectors can only transduce dividing cells, which limits their use for in vivo gene transfer in nonproliferating

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cells such as hepatocytes, myofibers, hematopoietic stem cells, and neurons (B3) (B4) . The optimal gene transfer system would include a retroviral vector based on a virus, such as HIV and other lentiviruses, that can integrate into the genome of nonproliferating cells. In vitro, HIV can infect primary cultures of monocyte-derived macrophages (B5) as well as cell cycle-arrested CD4.sup(+) HeLa or T lymphoid cells (B6) . Central to this ability are karyophilic determinants contained in two virion proteins, matrix (MA) and Vpr. These proteins interact with the nuclear import machinery and mediate the active transport of the HIV preintegration complex through the nucleopore (B7) (B8) (B9) .

A three-plasmid expression system was used to generate HIV-derived retroviral vector particles by transient transfection, as described for other vectors (B10) (Fig. 1) . Plasmid pCMV (Delta) R9, the packaging construct, contains the human cytomegalovirus (hCMV) immediate early promoter, which drives the expression of all viral proteins required in trans. This plasmid is defective for the production of the viral envelope and the accessory protein Vpu. The packaging signal ( PSI ) and adjacent

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sequences were deleted from the 5 (prime) untranslated region, but the 5 (prime) splice donor site was preserved. A polyadenylation [poly(A)] site from the insulin gene was substituted for the 3 (prime) long terminal repeat (LTR) at the end of the nef reading frame (B11) . This design eliminated cis-acting sequences crucial for packaging, reverse transcription, and integration of transcripts derived from the packaging plasmid (B12) . To broaden the tropism of the vector, we used a second plasmid that encodes a heterologous envelope protein for pseudotyping the particles generated by pCMV (Delta) R9 (B13) . Two variants of this construct were used: One variant encodes the amphotropic envelope of MLV (Ampho), and the other encodes the G glycoprotein of vesicular stomatitis virus (VSV G) (B14) . The latter envelope offers the additional advantage of high stability, which allows for particle concentration by ultracentrifugation (B15) . The third plasmid, the transducing vector (pHR (prime) ), contains cis-acting sequences of HIV required for packaging, reverse transcription, and integration, as well as unique restriction sites

for the cloning of heterologous complementary DNAs (cDNAs). Nearly 350 base

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pairs of gag as well as env sequences encompassing the **Rev** response element (RRE) flanked by splice signals were included in the pHR (prime) vector (B16) . This design had a dual purpose: first, to increase packaging efficiency, as both gag and env RNA determinants have been demonstrated to enhance this process (B17) , and second, to allow the efficient transcription and cytoplasmic export of full-length vector transcripts only in the presence of the HIV **Tat** and **Rev** regulatory proteins, both of which are encoded by the packaging plasmid, pCMV (Delta) R9. In the absence of these transacting factors, the only detectable expression originated from the internal promoter in the vector (B18) . The *Escherichia coli* (beta) -galactosidase ( (beta) -gal) or the firefly luciferase coding sequences were inserted into pHR (prime) downstream of the hCMV immediate early promoter to serve as reporter genes.

Replication-defective retroviral particles were generated by transient cotransfection of 293T human kidney cells with the three-plasmid combination (B19) . MLV-derived packaging and transducing vectors served as controls (B20) . Media from the various transfectants were first assayed

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for transduction frequency on growing 208F rat fibroblasts (B21) . HIV-based (beta) -gal vectors yielded titers of  $0.8 (+/-1.7) \times 10^5$  (n = 3) transducing units (TU) per milliliter with the MLV(Ampho) envelope and  $4 (+/-1.5) \times 10^5$  (n = 6) TU/ml with the VSV envelope. These titers are comparable with those obtained with MLV-based vectors produced by the same method- $10^5$  TU/ml with its own envelope, and  $5 \times 10^5$  TU/ml when pseudotyped with the VSV envelope-and significantly higher than those previously reported for other HIV-based vectors (B17) (B22) . Potentially contributing to this increased efficiency is the incorporation of accessory HIV-1 genes into the packaging construct, including nef that markedly enhances virion infectivity (B23) .

The HIV-derived vector system used here is devoid of helper virus per se. Furthermore, the use of a three-plasmid combination and of a heterologous envelope, as well as the removal of multiple cis-acting sequences from the packaging vector, makes it unlikely that a replication-competent recombinant would be generated. The potential transfer of packaging functions from producer to target cells was assayed

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by testing for the production of the **tat** and gag gene products in vector-transduced cells. Neither protein was detected, which, considering the sensitivity of the assays we used (B24) , implied that the transfer of packaging functions was at least three orders of magnitude less efficient than that of vector sequences. Furthermore, conditioned medium from serially passaged transduced cells did not transfer the reporter gene to naive cells (B24) .

HIV-and MLV-derived vectors were compared for their ability to transduce cells blocked at various stages of the cell cycle. HeLa cells were growth-arrested at the G<sub>1</sub>/S boundary or at the G<sub>2</sub> phase of



the cycle by aphidicolin treatment or gamma irradiation, respectively (B25) . The arrested state of the cells at the time of infection was verified by propidium iodide staining of the DNA and by flow cytometry (B18) . An HIV-based retroviral vector expressing (beta) -gal was as efficient at transducing G.inf(1)-S- and G.inf(2)-arrested as proliferating HeLa cells, whereas its MLV counterpart was only 5 to 8% as effective (Table 1) . The wider variability observed in the transduction of HeLa cells arrested by

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gamma irradiation was perhaps due to the cytotoxicity of the treatment.

To test whether the HIV-based vector integrates in the host cell genome, we used packaging constructs carrying mutations that inactivate integrase. HIV-1 mutants in which the expression of integrase is abrogated by the introduction of a stop codon at its 5 (prime) end do not reverse transcribe their genome efficiently (B26) . When this mutation was introduced into the packaging construct, it completely prevented transduction by the resulting vector particles. Furthermore, whereas a (beta) -gal vector made with the wild-type packaging construct had a transduction efficiency of 940 TU per nanogram of p24 in growing or G.inf(1)-S-arrested cells, a single amino acid change [from aspartic acid to valine at position 64 (D64V)] in the HIV-1 integrase sequence, previously demonstrated to severely decrease the activity of this enzyme but not to affect any other step of infection (B27) , reduced the efficiency to 54 and 130 TU per nanogram of p24 in growing and G1-S-arrested cells, respectively (B28) . Efficient gene transfer in both settings was thus dependent on reverse transcription as well as

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integration. Taken together, these results indicate that the unique features of HIV can be transferred to a replication-defective retroviral vector, allowing transduction of nonproliferating cells.

To test the transduction of cells arrested in G.inf(0), we grew cultures of rat 208F fibroblasts to confluence and then maintained them in G.inf(0) by density-dependent inhibition of growth in the presence of dexamethasone (B3) . The HIV-based vector was significantly more efficient than its MLV equivalent. However, its transduction rate decreased as a function of time between growth arrest and infection (Table 1). Cells growth-arrested for 4 days were transduced at levels that were 45% of those observed in dividing cells. However, in cells that had been maintained in G.inf(0) for 15 days, the relative transduction decreased to 17%. The MLV-based vector was significantly more affected by the growth arrest. In its case, the residual transducing activity reflected the fraction of cells still undergoing division, as assessed by propidium iodide staining of the cell DNA followed by flow cytometry (B29) . Whereas vector particles entered G.inf(0)-arrested and dividing cells with comparable efficiencies

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(B30) , they were significantly defective for reverse transcription in G.inf(0) cells (Fig. 2 ), which resembles a phenomenon observed in HIV-infected quiescent T lymphocytes (B31) . Nevertheless, a stable transduction intermediate must have been established, because replating and

proliferation of G.inf(0) cells up to 8 days after infection revealed titers as high as 50% of those obtained in dividing cells (Table 1). In contrast, inducing cell division even 1 day after inoculation did not rescue the MLV-derived vector. The generation of a stable infection intermediate by the HIV-based vector offers an advantage for delivering genes into targets such as hematopoietic stem cells. Indeed, it may alleviate the need for inducing the proliferation of these cells ex vivo, a manipulation that can affect their pluripotentiality.

The decreased transduction efficiency of the HIV vector in G.inf(0)-arrested fibroblasts may partly reflect suboptimal concentrations of intracellular deoxynucleotides (B32). Whether a similar limitation would preclude gene transfer into terminally differentiated primary cells could not be inferred from these observations and was therefore assessed

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directly. The HIV-based luciferase vector, pseudotyped with the VSV G protein, was tested for its ability to transduce human monocyte-derived primary macrophages (B33). Significant levels of luciferase activity were detected in an envelope-dependent manner (Table 2). In contrast, only background levels of luciferase activity were measured in macrophages inoculated with a comparable VSV G-pseudotyped MLV-based vector (B34). To rule out that the HIV vector was infecting a small proportion of macrophages that were proliferating, we generated mutant packaging constructs where Vpr and the nuclear localization signal (NLS) present in the MA protein were inactivated (B35). At least one of these two elements is essential for viral infection in macrophages, because they mediate nuclear import of the HIV preintegration complex (B7) (B8) (B9). A vector assembled from a mutant packaging construct in which both Vpr and the MA NLS are inactivated was severely reduced in its ability to transduce macrophages (Table 2). Similarly, NLS peptide treatment prevented transduction by a vector produced from a Vpr-defective packaging construct, thus corroborating the previously demonstrated inhibition of MA-mediated

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DIALOG(R)File 370:Science

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nuclear import of the HIV preintegration complex by this peptide (B9). Neither MA-Vpr double mutations nor NLS peptide treatment affected the ability of the vectors to transduce dividing cells (B18). The requirement for interaction with the cellular nuclear import machinery, together with the lack of significant transduction by the MLV vector, demonstrates that gene transfer by the HIV vector did occur in nonproliferating macrophages and not simply in a small proportion of dividing cells in the culture.

To test if HIV-based vectors can deliver genes in vivo, we injected highly concentrated stocks of HIV-or MLV-based (beta) -gal vectors pseudotyped with VSV G protein bilaterally into the corpus striatum and hippocampus of adult female rat brains (B36). Seven or 30 days later the brains were removed, sectioned, and processed for immunocytochemistry. Analysis with the light microscope showed no pathological change in the injected areas of the brains, except for a limited deposit of debris and lining-up of scavenger cells along the needle tract in brains examined 1 week after injection. These findings were even less apparent 1 month after the injection. Areas of (beta) -gal-positive cells were detected

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? e au=naldini, luigi

Ref	Items	Index-term
E1	63	AU=NALDINI, L.
E2	18	AU=NALDINI, LUCIANA
E3	96	*AU=NALDINI, LUIGI
E4	4	AU=NALDINI, M.
E5	2	AU=NALDINI, N.
E6	1	AU=NALDINI, ROSELLA
E7	5	AU=NALDINI, S.
E8	1	AU=NALDINILONGO B
E9	2	AU=NALDJIAN S
E10	2	AU=NALDMANN, H.
E11	1	AU=NALDO FELIPE M.A.
E12	63	AU=NALDO J

Enter P or PAGE for more  
? e au=naldini luigi

Ref	Items	Index-term
E1	4	AU=NALDINI LONGO, B.
E2	2	AU=NALDINI LUCIANA
E3	173	*AU=NALDINI LUIGI
E4	3	AU=NALDINI M
E5	2	AU=NALDINI MARCO
E6	2	AU=NALDINI R
E7	1	AU=NALDINI S
E8	1	AU=NALDINI S.
E9	19	AU=NALDINI, A.
E10	50	AU=NALDINI, ANTONELLA
E11	9	AU=NALDINI, B.
E12	1	AU=NALDINI, COSTANZA

Enter P or PAGE for more  
? s e3  
S11 173 AU='NALDINI LUIGI'  
? s s11 and lentivir? (n) vector? and rev  
173 S11  
77435 LENTIVIR?  
1416395 VECTOR?  
8355 LENTIVIR?(N)VECTOR?  
78574 REV  
S12 9 S11 AND LENTIVIR? (N) VECTOR? AND REV  
? rd s12  
>>>Duplicate detection is not supported for File 391.

>>>Records from unsupported files will be retained in the RD set.  
...completed examining records

S13 4 RD S12 (unique items)  
? d s13/3/1-4  
Display 13/3/1 (Item 1 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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0015048457 BIOSIS NO.: 200400419246  
Selection system for generating efficient packaging cells for  
**lentiviral vectors**

AUTHOR: McGuinness Ryan (Reprint); **Naldini Luigi**  
AUTHOR ADDRESS: Oakland, CA, USA\*\*USA  
JOURNAL: Official Gazette of the United States Patent and Trademark Office  
Patents 1286 (4): Sep. 28, 2004 2004  
MEDIUM: e-file  
PATENT NUMBER: US 6797512 PATENT DATE GRANTED: September 28, 2004 20040928  
PATENT CLASSIFICATION: 435-3201 PATENT ASSIGNEE: Cell Genesys, Inc.  
PATENT COUNTRY: USA

ISSN: 0098-1133 (ISSN print)  
DOCUMENT TYPE: Patent  
RECORD TYPE: Abstract  
LANGUAGE: English

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Display 13/3/2 (Item 2 from file: 5)  
DIALOG(R)File 5:Biosis Previews(R)  
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0013106272 BIOSIS NO.: 200100278111

A new-generation stable inducible packaging cell line for **lentiviral vectors**

AUTHOR: Farson Deborah; Witt Rochelle; McGuinness Ryan; Dull Tom; Kelly Michael; Song Jinping; Radeke Robert; Bukovsky Anatoly; Consiglio Antonella; **Naldini Luigi** (Reprint)  
AUTHOR ADDRESS: Laboratory for Gene Transfer and Therapy, IRCC, Institute for Cancer Research and Treatment, University of Torino Medical School, Strada Provinciale 142, 10060, Candiolo, Torino, Italy\*\*Italy  
JOURNAL: Human Gene Therapy 12 (8): p981-997 May 20, 2001 2001  
MEDIUM: print  
ISSN: 1043-0342  
DOCUMENT TYPE: Article  
RECORD TYPE: Abstract  
LANGUAGE: English

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DIALOG(R)File 5:Biosis Previews(R)  
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0012296112 BIOSIS NO.: 200000014425

**Lentiviral vectors** for gene therapy

AUTHOR: **Naldini Luigi** (Reprint); Bukovsky Anatoly; Dull Tom; Farson Deborah; Follenzi Antonia (Reprint); Enssle Joerge (Reprint)  
AUTHOR ADDRESS: Institute for Cancer Research, University of Torino Medical School, Torino, Italy\*\*Italy  
JOURNAL: European Journal of Cancer 35 (SUPPL. 5): pS34 Oct., 1999 1999  
MEDIUM: print  
CONFERENCE/MEETING: 5th International Symposium on the Biological Therapy of Cancer: From Basic Research to Clinical Applications Munich, Germany October 27-30, 1999; 19991027  
SPONSOR: Biological Therapeutics Development Group of the European Organisation for Research and Treatment of Cancer  
ISSN: 0959-8049  
DOCUMENT TYPE: Meeting; Meeting Abstract  
RECORD TYPE: Citation

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DIALOG(R)File 5:Biosis Previews(R)  
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0011701271 BIOSIS NO.: 199800495518  
A third-generation **lentivirus vector** with a conditional  
packaging system  
AUTHOR: Dull Tom; Zufferey Romain; Kelly Michael; Mandel R J; Nguyen Minh;  
Trono Didier; **Naldini Luigi** (Reprint  
AUTHOR ADDRESS: Cell Genesys, 342 Lakeside Dr., Foster City, CA 94404, USA  
\*\*USA  
JOURNAL: Journal of Virology 72 (11): p8463-8471 Nov., 1998 1998  
MEDIUM: print  
ISSN: 0022-538X  
DOCUMENT TYPE: Article  
RECORD TYPE: Abstract  
LANGUAGE: English

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DIALOG(R)File 5:Biosis Previews(R)  
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0012296112 BIOSIS NO.: 200000014425  
**Lentiviral vectors** for gene therapy  
AUTHOR: **Naldini Luigi** (Reprint); Bukovsky Anatoly; Dull Tom; Farson  
Deborah; Follenzi Antonia (Reprint); Enssle Joerge (Reprint  
AUTHOR ADDRESS: Institute for Cancer Research, University of Torino Medical  
School, Torino, Italy\*\*Italy  
JOURNAL: European Journal of Cancer 35 (SUPPL. 5): pS34 Oct., 1999 1999  
MEDIUM: print  
CONFERENCE/MEETING: 5th International Symposium on the Biological Therapy  
of Cancer: From Basic Research to Clinical Applications Munich, Germany  
October 27-30, 1999; 19991027  
SPONSOR: Biological Therapeutics Development Group of the European  
Organisation for Research and Treatment of Cancer  
ISSN: 0959-8049  
DOCUMENT TYPE: Meeting; Meeting Abstract  
RECORD TYPE: Citation

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LANGUAGE: English  
DESCRIPTORS:  
MAJOR CONCEPTS: Molecular Genetics--Biochemistry and Molecular Biophysics  
; Methods and Techniques  
BIOSYSTEMATIC NAMES: Hominidae--Primates, Mammalia, Vertebrata, Chordata,  
Animalia; Retroviridae--DNA and RNA Reverse Transcribing Viruses,  
Viruses, Microorganisms; Viruses--Microorganisms  
ORGANISMS: human (Hominidae); HIV-1 {human immunodeficiency virus 1}  
(Retroviridae)--gene vector; lentivirus (Retroviridae)--gene vector;  
VSV (Viruses)--gene vector  
ORGANISMS: PARTS ETC: hematopoietic stem cells--blood and lymphatics;  
viral core; viral envelope  
COMMON TAXONOMIC TERMS: Animals; Chordates; Humans; Mammals; Primates;  
Vertebrates; DNA and RNA Reverse Transcribing Viruses; Microorganisms;  
Viruses  
CHEMICALS & BIOCHEMICALS: virus gag gene; virus pol gene; virus  
**rev** gene

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E1	3	AU=DULL TERRY L
E2	13	*AU=DULL THOMAS
E3	12	AU=DULL THOMAS J
E4	2	AU=DULL THOMAS L
E5	46	AU=DULL TJ
E6	7	AU=DULL TL
E7	13	AU=DULL TOM
E8	1	AU=DULL U
E9	5	AU=DULL V
E10	15	AU=DULL V T
E11	5	AU=DULL V.T.
E12	4	AU=DULL VALERIE T

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? e au=bukovsky anatoly

Ref	Items	Index-term
E1	1	AU=BUKOVSKY A; CONSIGLIO A; +NALDINI L
E2	13	AU=BUKOVSKY AA
E3	33	*AU=BUKOVSKY ANATOLY
E4	21	AU=BUKOVSKY ANATOLY A
E5	56	AU=BUKOVSKY ANTONIN
E6	2	AU=BUKOVSKY ANTONINE
E7	2	AU=BUKOVSKY ANTONIO
E8	9	AU=BUKOVSKY E
E9	2	AU=BUKOVSKY E.
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